UNPUBLISHED
SURVEY & CONTROL
REPORTS

INTERMOUNTAIN STATION
Central Reference File
No. 3.4193-21

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

Project	Date	Author

SUBJECT—

TITLE

1951 SPRUCE BUDWORM DETECTION SURVEY

IN THE

HEADWATERS OF NORTON CREEK

ST. JOE NATIONAL FOREST, IDAHO

Damage was caused by an aphid, Cinara? sp.

Forest Insect Laboratory
Coeur d'Alene, Idaho
July 15, 1951

INDEX NO.—

U. S. GOVERNMENT PRINTING OFFICE 16—47272-1

FILE COPY
MISSOULA
FOREST INSECT
LABORATORY

Forest Insect Laboratory
Coeur d'Alene, Idaho

July 15, 1951

To: Files

From: Robert E. Denton, Supervisory Control Aid

Subject: 1951 Spruce Budworm Detection Survey in the Headwaters of Norton Creek, St. Joe National Forest, Idaho

In November of 1950 correspondence was received from Mr. M. N. Nance, District Forester, Spokane, Washington, reporting a new infestation of the spruce budworm in the headwaters of Norton Creek, on the St. Joe National Forest, Idaho. Specifically, the location was given as Section 28; T. 44N., R. 2E.

On July 9, 1951 an investigation was made of the area to check this report. From the St. Joe Divide Road, the Norton Creek Trail No. A-256 was followed for three miles, to a point well down Norton Creek proper, and a meandering return route was taken through Sections 28 and 29, in general following the northern-most tributary back to the St. Joe Divide Road, and thence to the starting point to complete the survey.

Description of the Area - The headwaters of Norton Creek consist of three main tributary drainages flowing eastward from the St. Joe Divide and joining approximately two miles from their sources. The area has been logged once and there were indications of a burn along Trail No. A-256 and the main creek. For several chains on either side of the creek the hillsides were quite open except for brush and a small amount of grand fir and Engelmann spruce reproduction. Farther up the hillsides and in the headwater drainages large Engelmann spruce and grand fir comprised the chief timber growth. Dense clumps of alder and maple bordered the tributaries and towards the summit of the divide the stand was more open because of numerous old windthrown trees. Openings were filled with grand fir reproduction and a heavy growth of such species as elderberry and alder.

Results of the Survey - From intensive examinations that were made on both the white fir and Engelmann spruce it is definitely concluded that there is no spruce budworm in this area. It is believed that the con-

dition responsible for the initial report is due to a "budworm infested appearance" of the new foliage of grand fir, which in reality is quite heavily infested with a large, green aphid. Numerous tips were observed on which the needles were matted together and upon parting the foliage a cluster of aphids was disclosed. The matting was caused by the copious and sticky honeydew produced by the feeding insects (figures 1 and 2).

No defoliation of any chewing type was observed on the trees. However, in many instances some of last year's needles appeared to be killed by the heavy feeding of aphids on the sap and these needles were clustered at the base of the current growth. Unless one were familiar with the appearance of budworm injury it is understandable how these dead needles could result in a mistaken identity of the insect responsible, especially if the observations were made in the fall when only the damage would be evident.

Engelmann spruce was not infested by this plant aphid; however, the spruce gall aphid, Adelges cooleyi Gill., is present in the area to a limited extent, evidenced by a few old terminal galls and cottony masses of eggs on some of the needles. To date no damage of any consequence was noted. Likewise, no serious damage has occurred to grand fir, judging by the full complement of foliage and the normal growth of the new shoots.

ABSTRACT OF FOREST INSECT SURVEY

Type of survey: Reconnaissance Field Station Reporting: Coeur d'Alene

Survey area: St. Joe National Forest Date: July 15, 1951

Project area: Norton Creek State: Idaho Co.: Benewah

Insect spp.: Spruce Budworm
Host spp.: White Fir - Douglas Fir
Status of infestation: Negative

Scope of infestation: _____ (Total Ac.); _____ (Total Tr.); _____ (Total b.m.); _____ (Trees/Ac.); _____ (b.m./Ac.)

Acreage of defoliation: _____ (Heavy); _____ (Medium); _____ (Light); _____ (Total)

Ownership (Acres): _____ (Federal); _____ (Private); _____ (State); _____ (Other)

Land status:

Timber resource value: (Current killing)

Past ____ yr cumulative:

Ultimate loss, if no control:

Industry dependence:

Control method recommended:

Estimated control costs: _____ (Total); _____ (Per Tr.); _____ (Per Ac.); _____ (Per b.m.)

Duration and time of control operation:

Reduction of infestation expected by control:

Period of control benefits expected without additional control action:

Agency expected to perform control operation:

Remarks: It is possible that examination failed to expose area as recorded. Further observations will be made.

Fig. 1 (Above). General view of grand fir terminal foliage showing clustering of new growth caused by a green aphid. Fig. 2 (Below). Close up view of damage caused by aphids to terminal growth. The newly-formed needles are stuck together by a sticky honey dew produced by the feeding insects. (Johnson, 1458, 1459).